

BUSINESS EXCELLENCE TRANSFORMATION BOOSTS REVENUE,  
PRODUCTIVITY

**ABOUT AMBAC INTERNATIONAL CORP.** AMBAC International, located in Elgin, South Carolina, is a global supplier of fuel systems and related components to the heavy-duty diesel industry. Since 1910, AMBAC has been manufacturing engine systems, making them one of the oldest and most experienced companies in the industry. Many major OEM technology products worldwide trace their heritage to the design concepts and engineering rigor of AMBAC. With around 65 employees, the company supplies diesel fuel systems, electric governors, and advanced components to the global transportation, agriculture, aviation, defense, and power generation industries.

**THE CHALLENGE.** AMBAC was primarily serving military contracts, but company leaders wanted to achieve a more balanced portfolio between its military and commercial products. Looking for strategic and operational guidance to manage the transition between those two very different marketplaces, AMBAC contacted the South Carolina Manufacturing Extension Partnership (SCMEP), a NIST MEP affiliate.

**MEP CENTER'S ROLE.** SCMEP recommended that the company participate in a Business Excellence Transformation program, beginning with a Strategic Planning and Policy Deployment training that covered tools for producing cultural change and sustaining improvements. After the initial training, SCMEP followed up with a number of Lean Manufacturing exercises for AMBAC, including Value Stream Mapping, Visual Management, Metrics, and Dashboards. Next, SCMEP helped AMBAC employees to transform the workplace floor, guiding the company through Standard Work - Cellular/Flow Manufacturing, and a 5S Workplace Organization event.

CEO Robert Isherwood was impressed with SCMEP's willingness to get on the shop floor and "get their hands dirty," while helping employees to develop and apply the tools they were learning. "At one point, someone from SCMEP was out in the warehouse with employees counting parts," Isherwood said. "It starts at that level. They are literally doing it with us."

The program concluded with a Lean for Jobs Shops training and Kanban materials management exercise. The improvements to the manufacturing process boosted productivity and revenue for AMBAC, greatly reduced line shutdowns, and encouraged the development of new products. The company is establishing relationships with local vendors for its commercial products.

"SCMEP has been instrumental in mentoring us through the process and contributing to growth. Through our relationship with SCMEP, we were able to identify additional vendors that are local and better suited for our needs."

-Robert Isherwood, CEO

## RESULTS



Approximately **10%** of last year's revenue was new growth



New customers working on new products



Production effectiveness is up roughly 13%, line shutdowns are almost obsolete

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